ON COMING OF AGE

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All the present time is a point in eternity.
MARCUS AURELIUS.

WITH years comes the advantage of perspective. Family communication would indicate my early choice of my life's work. Without family precedent or unusual medical exposure, from my third year I expressed the fixed determination to become a physician. In this ambition I was encouraged by my parents. The span of my actual medical course and the pursuit of its practice covers over 63 years. The changes in medical education and practice in this period have been tremendous. Even as it carried into the 20th century medical education in this country was in a deplorable state. During my third year in medical school the Flexner Report was published (1910). Forthwith 70 of 155 medical schools, many of them patently diploma mills, closed their doors. The surviving schools did a creditable job of soul-searching and of housecleaning by radical changes in faculties and curricula.

The art of medicine dominated the clinical scene upon our graduation. While more than a century had passed since Bichat had initiated the movement that brought descriptive medicine to full flower in the famous French school of Corvisart, Laennec, Louis, Broussais, Chomel, and Andral, its influence still permeated the practice in the English-speaking world. In America students of the French masters had representation in Jackson, Bowditch, and Holmes of Boston, Clark, Mitchell, and Mott of New York, and Gerhard, Stillé, and the elder Pepper of Philadelphia, among others. Pathology, gross and microscopic, brought rewards in the explanation of clinical processes. Certainly more recent skeptics have overlooked its magnificent past and its continuing contributions. Indeed to my generation a new world has been opened by phase and electron microscopy, histo- and immunochemical studies. Before the turn of the century the clinician had brought bacteriology into his armamentarium. The revelation of the etiology of many infec-

tious diseases and the development of biological agents for their diagnosis, control, and treatment rendered this basic science a most welcome ally. However, physiology and physiological chemistry were not widely applied at the bedside at that time. Vividly I recall Cecil Drinker's study of the blood sugar of a diabetic patient, a first, when he was a clinical clerk on the medical wards of the Philadelphia General Hospital (1912). Although Roentgen had given his surpassing discovery to the medical world in 1895, its use was still limited and the skin lesions of overexposure were a commonplace when we were undergraduate students and house officers.

In this period the practice of medicine was highly individualistic. The experimental methods had not been widely applied, and empiricism prevailed in therapy. However, the Wassermann reaction was announced (1909), and salvarsan was discovered (Ehrlich and Hata, 1910), while we were medical students. Professor J. William White gave the lectures on syphilis at the University of Pennsylvania at the time. In concluding his comments on its treatment, he said, "Gentlemen, from reliable sources in Europe I have just learned of the discovery of an arsenical, salvarsan, that is effective in the treatment of syphilis. Gentlemen, I will wager that 25 years from now you will still be treating syphilis with mercury and the iodides."

The practice of medicine underwent a marked transition after the first decade of the 20th century. Contributing to this change was the tremendous flood of scientific discoveries that developed from or impinged on medical practice. So great was this mass of knowledge that it exceeded the capacity of any individual to command a grasp of the whole. Perforce specialization was inevitable. In 1916 the Board for the Examination of Ophthalmologists was established to set standards for training and qualifying specialists in this field. The pattern set by this specialty has been followed by 20 other groups. The experience of the American Board of Internal Medicine (1936) was singular in one respect. On the representations of one of its original members, Reginald Fitz, this board required that applicants for subspecialty certification would be admitted to such examinations only after passing the general examinations, written and oral, of the parent board. By this device, the subspecialties were given a new dignity and prestige. Assuredly the American public has been well served by the influence of the several boards in the improved quality of medical care. However, William

Doolin aptly met a cogent issue when he said that it is "relatively easy to become a competent specialist, but it is much more difficult to become a good doctor—and it takes much longer."

With the exploitation of the specialized practice of medicine, the role of the family counselor became less attractive. Further, group or associate practice increasingly replaced independent endeavor. Coupled with the highly specialized practice and refined diagnostic techniques and apparatus, the expense of such sophisticated equipment and the limitation of skilled personnel for its operation led to a natural gravitation of practice to hospitals. This movement was augmented by the insistence of insurance carriers that their claimants be hospitalized. The natural outcome has been the unnecessary movement of an appreciable number of patients to hospitals. Turning to the involved equipment, the fault in its uneconomical duplication in hospitals of a given community was compounded by the competition for skilled personnel. Having witnessed these major contributions to the prohibitive cost of medical care, one is prepared for a radical revision of this phase of medical practice. Perhaps the most effective entering wedge is the Community Health Resources Council. Composed of representatives of the producers, dispensers, and consumers, such councils evaluate the assets and the requirements of their area for the delivery of health care. In specific instances, pooling of certain assets, assignment of specific functions to the several hospitals, and elimination of duplication serve the common interests. Envisioned, too, is a dispassionate evaluation of the hospital utilization by time and function. Siphoning off those patients who do not require actual hospital care or such extended periods of it, two devices for their accommodation have been developed. The first employs geographically convenient health centers and clinics, staffed by and responsible to the hospital. The second medium to relieve the conventional hospital is an attached unit after the motel pattern that will receive patients for varying periods, viz., extended examination, radiation therapy, etc., with appropriate nursing supervision. Both of these expedients will greatly reduce the hospital load at a lower cost to the patient. The close interchange of such elements with the parent institution is imperative for their success. Such plans presuppose a much smaller central hospital unit; but its staffing and equipment will preclude any financial saving to the admitted individual patient.

My medical career has largely been spent in an academic atmosphere.

Hans Zinsser expressed my reaction: "Learn from our pupils as we teach them. That is the only sound prophylaxis against the dodo-disease of middle age." Having long since passed that period of life, I give due credit to generations of medical students whose alert young minds have in some measure deferred my cerebral deterioration. Never has their contact been burdensome. On the contrary, I view each interchange with them at the bedside or in the conference room as an unmitigated blessing. There is no reward of teaching more gratifying to me than the emergence of the inquiring mind. "Happy is the teacher whose pupils became masters," said Pasteur. A full measure of this recompense has been afforded me.

The medical curriculum has been under considerable fire in recent years; but the prevalent idea that there had been no change since the Flexner Report is erroneous. In 1926 under Dean Charles R. Bardeen the preceptorial plan was reinstituted with supervision of the University of Wisconsin Medical School. Its success has induced 24 other medical schools to use this educational device in some form. On the initiation of the clinical years at Wisconsin (1925) there was a pooling of the teaching of all related subjects as the Coordinated Course in Medicine and Surgery. Western Reserve (1950) made a major contribution to medical education by vertical as well as horizontal coordination with a splendid utilization of the tutorial plan. So the list might be extended. Three principles are involved in practically all of the proposed and operative curricular modifications, namely, early clinical contacts, core courses, and extended electives. Without entering into a discussion of these details, the product of which we are observing with keen interest, the first observation relates to the precipitous (and universal) action of faculties without consideration of the local situation. Granting that a change was in order, not all of the old order was faulty. Even in 1909-1911, a medical student found time from his heavy schedule to investigate the effect of temperature on the efficacy of typhoid vaccines. Not earth-shaking, but I can assure you one student came to respect bacteriologic techniques more profoundly under the personal scrutiny of Professors Alexander C. Abbott and David H. Bergey. Then, if he be forgiven, he was one of eight students selected to work under Dr. Joshua Sweet in experimental surgery. My elected experiment was the resection of the esophagus of dogs. My uniform failure does not explain my choice of medicine as a career!

In the course of my academic career, I had administrative responsibilities as dean of the University of Wisconsin Medical School for 20 years (1935-1955). I was a reluctant dean. Yet, I hasten to add, I found deep satisfaction in certain aspects of my duties. Perhaps the altered viewpoint of a particular student's problems was the most rewarding. Particularly was this true when I could be of assistance. Then, too, there came a better grasp of the whole medical team rather than a single element, medicine. Deep as my interest in research has always been, I was concerned with the lack of a sense of financial responsibility in higher circles in its support. Before a convocation at the University of Iowa (1954), I voiced my reaction thus:

> In the great growth of scientific medicine, research has taken an increasingly important place in medical planning. Federal and private foundation funds have greatly augmented the effort. Indeed, under the generally accepted pattern of fixed projects, the temptation to exploit such sources of revenue may at times prove too inviting for the hard pressed administration of the medical school to resist. Sound planning will dictate the protection of the basic staff of a medical school by maintaining its responsibility for the salaries of key faculty members. Furthermore, the budget for research should bear a definite relationship to the total figure for medical education to avoid potentially serious dislocations on readjustments periodically necessitated by waves of enforced economy. Otherwise, the total financial structure of the medical school may collapse under the impact of an economic tidal wave.

To my deep regret this prophetic message went unheeded.

My academic career was interrupted by military service in both World Wars, and I was personal adviser to Surgeon General Raymond Bliss, U. S. Army, in the Korean war. In World War I, I was on detached service with the British Expeditionary Forces in France for 10 months. As a battalion medical officer I came to admire and respect the North County enlisted men and officers with whom I was so closely associated. Returning to the American Expeditionary Forces as medical man on the Chest Surgical Team under Major John L. Yates, it was my good fortune to be included in a small breakfast mess in Dijon, France, with Walter B. Cannon, Robert Drane, John L. Yates, and Hans Zinsser. In World War II after a short term at Lawson General

Hospital, Atlanta, I served on General Paul R. Hawley's staff as chief consultant in medicine of the European Theater of Operations (1942-1945). The full support of General Hawley was given to the medical and surgical consultants. Particularly was this circumstance important in the movement of medical officers to staff undermanned hospitals arriving in the theater. Never did the chief surgeon countermand a recommendation of mine. In our staff positions the opportunity to observe the growth of younger medical officers entrusted with great responsibilities was especially gratifying to the senior consultants. Particularly helpful were our opposites in the British and Canadian armies. Major General Sir Alexander Biggam, RAMC, and Colonel Loren C. Montgomery, CAMC, were ever ready and free in extending their good offices. Brigadier Sir Lionel Whitby, in charge of the procural and processing of blood for all British forces, was especially close. The contact with representative civilian physicians in Great Britain brought immediate rapport and continued friendship.

Singularly, with a family tradition of military service, I have always had an innate abhorrence of violence. War with its anguish of mind and body has always been a relic of barbarism to me. Yet with the humanitarian tenets of our profession, I have held it a privilege rather than an obligation to serve my country in war. I have resented expressions in high places that have given comfort to the enemy and weakened the hand of our troops committed to a combat task not of their making. It has been my observation that war brings out the best and the worst in its participants. Interestingly I have considered the care of veterans as an element of national defense. As a member of the first Special Medical Advisory Group (1946-50) and in other capacities in the Veterans Administration Department of Medicine and Surgery, it has been gratifying to see the Deans Committee Plan of Medical School-Veterans Administration Hospital affiliation, envisioned by my friend Paul R. Magnuson, redound to the vastly improved care of the sick and disabled veteran and, in an increasing degree, to the advantage of medical education and research. An unanticipated dividend accrued to my term of service as chief medical director of the Veterans Administration in Washington (1955-1963). I found my associates, civil servants in the best tradition, dedicated and effective in a high degree. Further, with rare exceptions, the elected representatives of the people in the House and Senate were truly responsive to their constituencies. Allen Drury

certainly traveled in a different circle to collect his characters and experiences for *Advise and Consent!*

Robert Gibbings wrote:

> Admittedly there is cruelty, and illness and poverty, but there is also abundance of kindness, good health, and richness of spirit. For every child that cries by the roadway there are fifty who are laughing in the fields; for every bird that is taken by a hawk there are a hundred still singing in the trees. Even in these days when hell bursts upon the world, like boiling lava from a volcano, let us remember that for every insult offered to humanity there are a hundred deeds of heroism.

So my faith in humanity and my confidence in the future of medicine remain unabated. Admittedly the gaps between capability and performance have loomed large in the recent past. To gain the pinnacle of mutual satisfaction in our effort, medicine must assume its proper role as the keystone of the arch of health care. We can expect to attain this objective only as part of the health-care team in which we assume our social as well as our professional responsibilities.

Having passed my 81st birthday, I turn respectfully to Doctor David Riesman's explanation of his mental attitude at 70, "I have always maintained contact with 'young men' of all ages." Ullman wrote, "Nobody grows old by merely living a number of years. People grow old only by deserting their ideals." So, facing the setting sun as the shadows grow longer behind me, I am grateful for my full life with its opportunities and the sustaining strength of my family and friends. Said Langdon-Brown: "The life to which I belong uses me, and will pass beyond me, and I am content."